This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously amended): A catalyst that comprises at least one hydro-dehydrogenating element and a substrate that comprises at least one silica-alumina, whereby said silica-alumina has the following characteristics:

-- a content by weight of silica of 10-60% by weight,

-- a sodium content that is less than 300 ppm by weight,

-- a total pore volume of between 0.5 and 1.2 ml/g,

-- the volume of mesopores with a diameter of between 40-150 Å, and a mean diameter of between 80-120 Å represents 30-80% of the total pore volume,

-- the volume of macropores with a diameter that is greater than 500 Å represents 20-80% of the total pore volume, and

-- a specific surface area that is greater than 200 m^2/g.

Claim 2 (currently amended): A catalyst according to claim 1, in which the silica-alumina comprises Al_{VI} (octahedral) ~~radicals~~ species and Al_{IV} (tetrahedral) ~~radicals~~ species, whereby the proportion of the tetrahedral Al_{IV} is between 20 and 40%.

Claim 3 (currently amended): A catalyst according to claim 1, in which the silica-alumina comprises 30-50% of Q^2 ~~radicals, in which~~ species, wherein an Si atom is linked to two Si or Al atoms and to two OH groups and also comprises 10-30% of Q^3 ~~radicals in which~~ species wherein an Si atom is linked to three Si or Al atoms and to an OH group.

Claim 4 (currently amended): A catalyst according to claim 1, that contains at least one of boron ~~and/or~~ and silicon.

Claim 5 (previously amended): A catalyst according to claim 1, that contains at least one element that is selected from among groups VIIA, VIIB, and VB.

Claim 6 (currently amended): A catalyst according to claim 1, in which the substrate consists of silica-alumina.

Claim 7 (previously amended): A catalyst according to claim 1, whose substrate comprises 1-40% by weight of binder.

Claim 8 (currently amended): A catalyst according to claim 7, in which the substrate results from the mixture of said silica-alumina and at least one binder selected from the group consisting of silica, alumina, clays, titanium oxide, boron oxide and zirconium.

Claim 9 (previously amended): A catalyst according to claim 1, that has undergone a sulfurization treatment.

Claim 10 (previously amended): A process for hydrocracking with a catalyst according to claim 1, at a temperature that is greater than 200°C, a pressure that is greater than 0.1 Mpa, with an amount of hydrogen of at least 50 l/l of feedstock, and with an hourly volumetric flow rate of 0.1 to 20 volumes of feedstock per volume of catalyst and per hour.

Claim 11 (previously amended): A process according to claim 10 for the hydrocracking of feedstocks that are selected from the group that is formed by kerosenes, gas oils, vacuum gas oils,

atmospheric residues, vacuum residues, atmospheric distillates, vacuum distillates, heavy fuels, oils, waxes, paraffins, waste oils, deasphalted residues, deasphalted crudes, the feedstocks that are obtained from thermal conversion or catalytic conversion processes, whereby the feedstocks contain less than 30% by weight of paraffins.

Claim 12 (previously amended): A process according to claim 10, wherein the feedstock is first hydrotreated.

Claim 13 (previously amended): A process according to claim 10, in which the hydrocracking is carried out in two stages with intermediate separation, whereby the catalyst is used in at least one stage.

Claim 14 (previously amended): A process according to claim 10, in which the feedstock contains less than 25% by weight of paraffin.

Claim 15 (previously added): A catalyst according to claim 1, wherein the volume of macropores in said silica-alumina is 20-70% of the total pore volume.

Claim 16 (new): A catalyst according to claim 4 that contains at least one element that is selected from among groups VIIA, VIIB, and VB.

Claim 17 (new): A catalyst according to claim 5, in which the substrate consists of silica-alumina.

Claim 18 (new):A catalyst according to claim 5, whose substrate comprises 1-40% by weight of binder.

Claim 19 (new): A catalyst according to claim 18, that has undergone a sulfurization treatment.

Claim 20 (new): A catalyst according to claim 19, wherein the volume of macropores in said silica-alumina is 20-70% of the total pore volume.